

CURRICULUM VITAE

Ray H. Hashemi, MD, PhD, FACR

**Diplomate American Board of Radiology
Fellow American College of Radiology (FACR)**

OFFICE **ADVANCED IMAGING CENTER, Inc.** **MAILING:** P.O. Box 49517
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EMPLOYMENT HISTORY

Founder, President, and Medical Director,
ADVANCED IMAGING CENTER, Inc., Lancaster, Palmdale, Valencia, Ridgecrest, CA 1/98-Present

Medical Director, Bay Harbor MRI & Diagnostic Center, Harbor City, CA 7/95-3/98

LICENSURE/CERTIFICATION

<i>CA Medical License</i> (G71742)	1991	<i>X-Ray Supervisor License</i>	1991
<i>DEA</i> (BH2848159)	1991	<i>Board Certification (ABR)</i>	1994
<i>NPI</i>	1851355473	<i>Citizenship</i>	USA
<i>FACR (Fellow American College of Radiology)</i>			May 2021

EDUCATION

M.D. University of Miami School of Medicine June 1989

Ph.D. Electrical & Computer Engineering Dec. 1985
University of California, Santa Barbara (UCSB) *GPA:* 4.0/4.0

M.S. Electrical & Computer Engineering Apr. 1983
University of California, Santa Barbara (UCSB) *GPA:* 4.0/4.0

B.S. Electrical & Computer Engineering (*with highest honors*) Mar. 1982
University of California, Santa Barbara (UCSB) *GPA:* 4.0/4.0

POSTGRADUATE TRAINING

Fellowship (MRI) Memorial MRI, Long Beach Memorial Medical Center, Long Beach, CA 7/94-7/95
Director: William G. Bradley, Jr., MD, PhD, FACR

Residency/Internship Diagnostic Radiology, Kaiser-Sunset Medical Center, LA, CA 1989-1994

Other Training Children's Hospital (6 months), UCLA (3 months), USC (3 months) 1990-1994

Vascular Symposium UCLA Symposium on Interventional Therapy of Vascular Disease May 1992
Director: Thomas O. McNamara, MD

AFIP A six-week didactic course in radiologic-pathologic correlation, Washington D.C. Aug. 1991

RADIOLOGY SKILLS

MRI (neuro, musculoskeletal, body, pediatrics); MR angiography; MR arthrography; MR fluoroscopy; MR Myelography; MR Urography; MR CholangioPancreatography (MRCP); CT (multi-detector); CT Angiography; ultrasound; mammography; nuclear medicine; pediatric radiology; neuroradiology; General radiography and fluoroscopy; arthrography; vascular imaging; interventional radiology.

RESEARCH EXPERIENCE

<i>Fellow</i>	Long Beach Memorial MRI Center <i>Director:</i> William G. Bradley, Jr., M.D., Ph.D., FACR	9/94-5/95
	Investigating the high sensitivity of the Fast Fluid Attenuated Inversion Recovery (Fast-FLAIR) MRI technique in detecting MS plaques in the brain and compared it to the conventional Spin Echo technique.	
<i>Resident/ PreFellow</i>		1992-1994
	Prior to the start of his MRI fellowship, Dr. Hashemi collaborated with Dr. William Bradley to develop an MRI compatible pump that simulated the flow of CSF in the brain's aqueduct of Sylvius. This research allowed for later development of CSF flow protocols by Siemens Medical on their high-field MRI systems. Long Beach Memorial	
<i>Senior Engineer</i>	TAU Corporation 485 Alberto Way, Los Gatos, CA 95030	10/86-5/87
	A "high-tech" company in the San Francisco "Silicon Valley" area; applied advanced computer-aided estimation and signal processing techniques to develop a new navigation system.	

TEACHING EXPERIENCE

<i>MRI Fast Scanning</i>	Long Beach Memorial MRI Center Lectures on Fast MR Scanning given at the visiting fellowship course at LBMMR Center every month.	9/94-6/95
<i>MRI Physics</i>	Kaiser Medical Center, LA, CA (14 videotaped lectures on MRI physics)	1/93-8/93
<i>Assistant Professor</i>	Dept. of Elect. & Comp. Engineering, UCSB	1/86-6/86

BUSINESS ACHIEVEMENTS

In 1998, Dr. Hashemi founded **Advanced Imaging Center** in Lancaster and introduced many new imaging technologies and concepts to the Antelope Valley area for the first time. These included new equipment such as OPEN MRI, high-field short-bore MRI, PET scanning, Multi-Slice CT, and 3D/4D ultrasound. Dr. Hashemi also introduced procedures that had never been performed in the AV area in the past. These procedures include ultrafast contrast-enhanced MRA (including carotid, renal, pulmonary, and runoff), breathhold abdominal MRI, MR Cholangiopancreatography (MRCP), Whole-body CT scanning (HealthScan), Virtual Colonoscopy (VC), CT Coronary calcium scoring, CT Coronary Angiography, MRA and CTA runoff, MR and CT arthrography, MR and CT Urography, multi-slice CT scanning of the appendix, and many more. He introduced the concept of "service-oriented" imaging facility where the doctors and their patients come first.

Advanced Imaging Center, Inc. currently has 4 sites, serving 4 major cities: Lancaster, Palmdale, Valencia and Ridgecrest. Advanced Imaging Centers have become Antelope Valley, Santa Clarita Valley and Ridgecrest's premiere imaging centers. They have become the imaging centers that local doctors entrust to refer themselves and their own family members to.

Recently, Dr. Hashemi developed a revolutionary, easy-to-use digital reader PACS (Picture Archiving Communications System) software called **EZPACS™**, which allows digital "soft-copy" reading of all imaging modalities on-site and remotely via the internet using a Windows-based PC. He has also developed a radiology RIS (Radiology Information System) management software called **EZRIS™**, which enables integration of scheduling, scanning, billing/collection and management. These products are FDA approved and together offer one of the most technologically advanced and easy-to-use paperless Electronic Medical Records and Imaging systems in the world.

PROFESSIONAL AFFILIATIONS

- American College of Radiology (ACR)
- California Radiological Society (CRS)
- Los Angeles Radiological Society (LARS)

ACADEMIC HONORS

<i>Chief Resident</i>	Radiology Residency, Kaiser Medical Center	7/92-7/93
<i>In-service exams</i>	Diagnostic Radiology: 98% (Feb. 1991), 99% (Feb. 1992), 98% (Feb. 1993)	
<i>Graduate Scholarship</i>	University of California Regents Graduate Scholarship	1982-1985
<i>Undergrad Honors</i>	UCSB, College of Engineering, Dean's Honors List, continuously for 4 years	1979-1982
<i>GPA 4.0/4.0</i>	Maintained a straight 4.0 Grade Point Average at UCSB for 7 years straight	1979-1985.

COMMUNITY SERVICE

Involved with various charity organizations, especially those dealing with underprivileged children.

PUBLICATIONS

BOOKS

1. Hashemi RH, Lisanti C, Bradley WG. *MRI: The Basics, 4th edition*. Williams & Wilkins; **2018** (a comprehensive textbook/handbook on MRI basics and recent advances covering basic physics concepts to more advanced topics, such as fast scanning techniques and MR Angiography, **479 pages**, over 400 illustrations and images, 100 board-style questions).
2. Hashemi RH, Bradley WG, Lisanti C. *MRI: The Basics, 3rd edition*. Williams & Wilkins; **2010** (a comprehensive textbook/handbook on MRI basics and recent advances covering basic physics concepts to more advanced topics, such as fast scanning techniques and MR Angiography, **385 pages**, over 400 illustrations and images).
3. Hashemi RH, Bradley WG, Lisanti C. *MRI: The Basics, 2nd edition*. Williams & Wilkins; **2004. 353 pages**.
4. Hashemi RH and Bradley WG. *MRI: The Basics*. Williams & Wilkins; **1997. 307 pages**.

RADIOLOGY PRESENTATIONS

- 1• "AIC FUN PRESENTATIONS": An entertaining clinical-radiological presentation covering various topics in radiology with clinical correlation, designed for non-radiologist doctors. Offered monthly or bimonthly by Advanced Imaging Center, Lancaster, CA. 2004-2005.

ARTICLES

- 1• Hashemi RH, Bradley WG, et al. Suspected Multiple Sclerosis: MR Imaging with a Thin-Section Fast FLAIR Pulse Sequence. *Radiology* 1995; 196:505-510.
- 2• Atkinson DJ, Chen DY, Bradley WG, Mullin WJ, and Hashemi RH, "High Resolution Quantification Assessment of Aqueductal CSF Motion by Phase Contrast MRI Techniques: Correlation with Pulsatile Flow Phantom," submitted to *Radiology*, 1995.
- 3• Roy S, Hashemi RH, and Laub AJ, "Square-Root Parallel Kalman Filtering using Reduced-Order Local Filters," *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 27, 1991, pp. 276-289.
- 4• Hashemi RH and Rhodes IB, "Decentralized Sequential Detection," *IEEE Transactions on Information Theory*, Vol. 35, No. 3, May 1989, pp. 509-520.
- 5• Hashemi RH and Laub AJ, "Kalman Filtering for Second-Order Models," *AIAA Journal of Guidance and Control*, Vol 11, No. 2, Mar.-Apr. 1988, pp. 181-186.
- 6• Hashemi RH and Laub AJ, "On the Suboptimality of a Parallel Kalman Filter," *IEEE Transaction on Automatic Control*, Vol. 33, No. 2, Feb. 1988, pp. 214-217.
- 7• Hashemi RH, Roy S, and Laub AJ, "Decentralized Structures for Parallel Kalman Filtering," *IEEE Trans. on Automatic Control*, Vol. 33, No. 1, Jan. 1988, pp. 88-93.
- 9• Hashemi RH and Rhodes IB (*Invited Session*), "Decentralized Dynamic Decision Making," *Proceedings of the 26th IEEE Conference on Decision and Control*, Los Angeles, CA, Dec. 1987, pp. 1836-1841.
- 10• Hashemi RH, Roy S, and Laub AJ, "Decentralized Structures for Parallel Kalman Filtering," *Proceedings of the 10th World Congress of the International Federation of Automatic Control*, Munich, W. Germany, July 1987.

ABSTRACTS/PRESENTATIONS

- 1• Hashemi RH, Bradley WG, et. al., "MR Imaging of Suspected Multiple Sclerosis Using a 2mm Sagittal Fast-FLAIR Pulse Sequence," presented at the *ASNR*, Chicago, April 1995 (paper 186, p. 105).

- 2• Atkinson DJ, Bradley WG, Chen DY, Moreau D, Hashemi RH, *et al.*, "3D Turbo Spin Echo Imaging of the Cervical Spine," presented at the *ASNR*, Chicago, April 1995 (paper 232, p. 129).
- 3• Atkinson DJ, Bradley WG, Chen DY, Moreau D, Hashemi RH, *et al.*, "Optimization of 3D Carotid MR Angiography with High Performance Gradients," presented at the *ASNR*, Chicago, April 1995 (paper 53, p. 41).
- 4• Mullin WJ, Atkinson DJ, Hashemi RH, Yu J, and Bradley WG "CSF Flow Quantification: Comparison of three measurement methods, *Annual Mtg. of Magnetic Resonance Imaging*, 1993, p. 55 (presented at the *Society of Magnetic Resonance Imaging*, San Francisco, Mar. 1993).
- 5• "Imaging of Right Lower Quadrant Pathology," with Rooholamini SA, Razavi M, Vickers R, Au AH, Wong LC, Saul R, and Kadell BM, *93rd Annual Mtg. of Amer. Roentgen Ray Society*, Apr. 1993, p. 154.
- 6• "CT Evaluation of Small Bowel Tumors," with Saul R, Au AH, Honda H, Franken EA, *et al.*, Poster Presentation at *RSNA*, Chicago, Nov. 1992 (also submitted to the *American Roentgen Ray Society*).
- 7• "Fibrous Tumors of the Abdomen," with Vickers R, Au A, Rooholahmini S, Saul R, *et al.*, submitted to the 93rd Annual Mtg. of the *American Roentgen Ray Society*, 1993.
- 8• Hashemi RH, Roy S, and Laub AJ (*Invited Session*), "Parallel Structures for Kalman Filtering (*Invited Session*)," *Proceedings of the 26th IEEE Conference on Decision and Control*, Los Angeles, CA, Dec. 1987, pp. 1476-1481.

PERIODICAL NEWSLETTERS (all found at www.advanced-imaging-center.com)

2020 Newsletters

5/1/20 An Interesting Spine MRI case

2012 Newsletters

4/18/12 MRI of the IAC's: Value of a Dedicated Scan with Contrast

2/10/12 3T MRI /MRS (MR Spectroscopy) of the PROSTATE: STATE-OF-THE-ART

2011 Newsletters

10/25/11 Interesting Case Presentation: Thyroid Hemiagenesis with Ectopic Lingual Thyroid

10/10/11 Breast Awareness Letter

08/09/11 PET-CT and DIGITAL MAMMO with CAD

03/30/11 Interesting Case: Arrhythmogenic Right Ventricular Dysplasia (ARVD)

2011 Newsletters

08/09/11 PET-CT and DIGITAL MAMMO with CAD

03/30/11 Interesting Case: Arrhythmogenic Right Ventricular Dysplasia (ARVD)

2009 Newsletters

07/21/09 Value of MR Arthrography in Diagnosis of UCL Tear of the Elbow

02/01/09 BREAKING NEWS!!! AIC OPENING UP NEW OUTPATIENT IMAGING CENTER IN RIDGECREST, CA

2008 Newsletters

11/20/08 Case Report: Avascular Necrosis of the Lunate (Kienbock's Disease)

04/07/08 Case Report: Occult Aggressive Nasopharyngeal Cancer

03/30/08 Case Report: Bilateral Ovarian Teratomas

01/21/08 Case Report: Another Cause of Hip Pain

01/14/08 Case Report: Testicular Microlithiasis

2007 Newsletters

11/21/07 HIDA Scan: Value of Hybrid SPECT-CT Fusion

09/17/07 Case Report: Cyclops Lesion of the Knee

06/01/07 CT Urogram: Value of IV Contrast for Diagnosis of Ureteral Stones

05/14/07 Interesting Case: Ectopic Breast Tissue

05/08/07 Interesting Case: Achilles Peritendinosis

04/16/07 Interesting Case: Superficial Siderosis

01/15/07 Interesting Case: Stener Lesion

2006 Newsletters

12/11/06 Screening Low-Dose Chest CT

11/01/06 Radiation Dose on AIC's 64-Slice CT

09/29/06 MR & CT Angiography: 64-Slice

08/21/06 AIC Acquires 64-Slice CT in Valencia

07/10/06 Value Of MRI In Diagnosis of Stress Fractures

05/17/06 In-Phase and Out-Of-Phase MR Imaging

03/22/06 When Is A Contrast Agent Necessary?

03/22/06 Value Of IV Contrast: Imaging In Suspected Appendicitis

2005 Newsletters

10/10/05 Our Helical CT

08/15/05 MR Arthrography

08/01/05 Epiploic Appendagitis

07/18/05 Mesial Temporal Sclerosis

07/05/05 Mesial Temporal Sclerosis and Hippocampal Atrophy
06/20/05 Intussusception - CT Appearance
06/06/05 SCFE - Early MRI Findings
05/16/05 Orbital Blowout Fracture
03/28/05 FLAIR/MS
03/21/05 Acoustic Neuroma
03/14/05 Imaging of Appendicitis
03/01/05 MR Spine Contrast
02/21/05 Morton Neuroma on MRI of the Foot
01/01/05 Bankart Lesion

2004 Newsletters

11/10/04 Leriche Syndrome
06/15/04 CT And MR Angiography
05/05/04 Foreign Body Granuloma and AVN of the Hips
03/22/04 Value of Contrast in Spine MRI
03/01/04 MR/CT Arthrogram of the Shoulder
02/09/04 MR/CT Arthrogram
02/06/04 Bechet's Syndrome - Brain Findings

2003 Newsletters

10/10/03 “Omental Cake” Sign of Peritoneal Metastasis
09/15/03 Case Presentation - Diagnosis of Subarachnoid Hemorrhage
04/14/03 Case Presentation - Parathyroid Adenoma
03/20/03 Case Presentation - Ureteropelvic Junction Obstruction
02/14/03 Case Presentation - CT Appearance of Acute Pyelonephritis
02/01/03 Case Presentation - Temporal Lobe Epilepsy

2002 Newsletters

11/01/02 Case Presentation - Thyroglossal Duct Cyst
10/21/02 Intussusception - CT Appearance (MSCT)
10/14/02 Case Presentation - Acoustic Neuroma
05/14/02 Case Presentation - Obstructive Tumor of Aqueduct
05/01/02 Diagnosing Adrenal Adenomas, Focal Fatty Infiltration
02/11/02 3-D Virtual Colonoscopy
01/15/02 Multi-Slice CT

2001 Newsletters

- 09/08/01 Case Presentation - Central Neurocytoma
- 07/23/01 Case Presentation - Caudal Regression Syndrome (Sacral agenesis)
- 07/23/01 Case Presentation - Trigger Thumb
- 07/02/01 Case Presentation - Slipped Capital Femoral Epiphysis
- 05/01/01 Parathyroid Adenomas: Sestamibi Parathyroid Scintigraphy
- 03/26/01 Automatic Moving Stepping-Table in MRA RUN-OFF Studies
- 02/26/01 Enhanced Dynamic MRI Imaging of Pituitary Microadenomas

2000 Newsletters

- 11/14/00 Case Presentation - Endometrioma
- 10/30/00 Brenner Tumor of the Ovary
- 10/16/00 Introducing "HealthScan" Whole-Body Screening CT Scan
- 09/25/00 MR Cholangio Pancreatography (MRCP)(updated)
- 09/18/00 Case Presentation - Rheumatoid Arthritis
- 08/28/00 Central Pontine Myelinolysis (CPM)
- 08/14/00 Value of MRI FLAIR Sequence in Multiple Sclerosis
- 07/31/00 PET Scan of the Breasts Distinguishes Cancer from Scar Tissue
- 07/10/00 MRI of the Hand with Pathologic Correlation
- 06/26/00 Contrast-Enhanced Subtraction MRA Run-off
- 06/12/00 Orbital Blowout Fracture
- 06/01/00 Acute Brainstem Stroke: MR DIFFUSION
- 05/15/00 CT of Mucocele of the Appendix
- 04/17/00 Helical CT of the Appendix
- 03/13/00 Contrast-Enhanced Subtraction MR Angiography (CE-MRA)
- 02/28/00 State of the Art Imaging of Urinary Calculi
- 02/07/00 MR Mammography (routine and contrast dynamic study)
- 01/24/00 Advanced Ultrafast CT Techniques: State of the Art (Part II)
- 01/10/00 Advanced Ultrafast CT Techniques: State of the Art (Part I)
- 01/03/00 Value of PET in Work-Up of Oncology Patients

1999 Newsletters

- 11/22/99 A Vertebral Bony Lesion: MRI, CT and SPECT Correlation
- 10/25/99 MR Cholangio Pancreatography (MRCP)
- 10/25/99 Advanced Topics in Orthopedic Radiology: MR ARTHROGRAM
- 10/18/99 MR Diffusion and Perfusion
- 10/06/99 Topics in Neuroradiology: MRI CSF Flow Study
- 09/08/99 Coronary Calcification Scoring

09/04/99 A Pioneer In Advanced Diagnostic Imaging Equipment

08/01/99 Value of Positron Emission Tomography (PET) in the Brain